DOCKET NO.: CARP-0123/P035760US/HGH PATENT

Application No.: 10/579,981

Office Action Dated: March 17, 2008

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

(Previously presented) A transformed host cell comprising

i) a chromosomal gene which inhibits cell growth operably linked to a regulatory

sequence; and

ii) a plasmid comprising an origin of replication encoding an antisense sequence

which binds to mRNA transcribed from the regulatory sequence,

wherein the binding of the antisense sequence encoded by the origin of replication of the plasmid to mRNA transcribed from the regulatory sequence inhibits the action of the chromosomal gene,

thereby permitting cell growth.

2. (Original) A transformed host cell according to claim 1 wherein the plasmid comprises a

cloning site for insertion of a gene of interest.

3. (Previously presented) A transformed host cell according to claim 2, wherein the plasmid

further comprises a gene of interest.

4.-9. (Canceled)

10. (Previously presented) A transformed host cell according to claim 1, wherein the

antisense sequence encoded by the plasmid is RNAI or a portion thereof and the regulatory sequence operatively linked to the chromosomal gene encodes RNAII or a portion thereof.

11. (Previously presented) A transformed host cell according to claim 1, wherein the

antisense sequence encoded by the plasmid is RNAII or a portion thereof and the regulatory

sequence operatively linked to the chromosomal gene encodes RNAI or a portion thereof.

(Canceled)

Page 4 of 14

DOCKET NO.: CARP-0123/P035760US/HGH Application No.: 10/579,981

Office Action Dated: March 17, 2008

 (Previously presented) A transformed host cell according to claim 1, wherein the cell is in culture in vitro.

 (Previously presented) A transformed host cell according to claim 1 which is a prokaryotic cell.

 (Previously presented) A transformed host cell according to claim 14 which is a bacterial cell.

 (Previously presented) A transformed host cell according to claim 15, wherein the cell is a gram negative bacterial cell.

 (Previously presented) A transformed host cell according to claim 16, wherein the cell is an E. coli cell or a Salmonella cell.

 (Withdrawn) A transformed host cell according to claim 15, wherein the cell is a gram positive bacterial cell.

19. (Withdrawn) A transformed host cell according to claim 18, wherein the cell is a *Bacillus* cell

(Previously presented) A transformed host cell according to claim 15 which is an
attenuated cell

 (Withdrawn) A transformed host cell according to claim 1 wherein the cell is a eukaryotic cell.

22. (Withdrawn) A transformed host cell according to claim 21 wherein the cell is a fungi.

 (Withdrawn) A transformed host cell according to claim 21, wherein the cell is a plant cell. DOCKET NO.: CARP-0123/P035760US/HGH Application No.: 10/579,981

Office Action Dated: March 17, 2008

24. (Withdrawn) A transformed host cell according to claim 21 wherein the cell is an animal cell

- (Withdrawn) A transformed host cell according to claim 1, wherein the chromosomal gene is a toxin gene.
- (Withdrawn) A transformed host cell according to claim 25, wherein the toxin gene is sacB.
- 27. (Previously presented) A transformed host cell according to claim 1, wherein the chromosomal gene encodes a repressor protein that inhibits expression of a second chromosomal gene essential for cell growth.
- (Previously presented) A transformed host cell according to claim 27, wherein the second chromosomal gene is conditionally essential for cell growth.
- 29. (Previously presented) A transformed host cell according to claim 27 wherein the chromosomal gene encodes the repressor *lacl* and the second chromosomal gene is operatively linked to a *lac* operator and promoter.
- (Withdrawn) A transformed host cell according to claim 27 wherein the chromosomal gene is dapD or fabA.
- 31. (Withdrawn) A transformed host cell according to claim 1, wherein the chromosomal gene encodes an antisense sequence that inhibits expression of a second chromosomal gene essential for cell growth.
- 32. (Withdrawn) A transformed host cell according to claim 31, wherein the antisense sequence encoded by the chromosomal gene inhibits expression of the second chromosomal gene by binding to the chromosomal gene.

DOCKET NO.: CARP-0123/P035760US/HGH Application No.: 10/579,981

Office Action Dated: March 17, 2008

- 33. (Withdrawn) A transformed host cell according to claim 31, wherein the antisense sequence encoded by the chromosomal gene inhibits expression of the second chromosomal gene by binding to mRNA transcribed from the second chromosomal gene.
- 34. (Withdrawn) A transformed host cell according to claim 31 wherein the second chromosomal gene is conditionally essential for cell growth.
- 35. (Withdrawn) A transformed host cell according to claim 31, wherein the second chromosomal gene is *dapD* or *fabA*.
- 36. (Currently amended) A transformed host cell according to claim 1 wherein the chromosomal gene or the regulatory sequence chromosomal gene fusion operably linked to a regulatory sequence is under the control of a constitutive promoter.
- 37. (Currently amended) A transformed host cell according claim 1 wherein the chromosomal gene or the regulatory sequence chromosomal gene fusion operably linked to a regulatory sequence is under the control of an inducible promoter.
- 38. (Withdrawn) A method of maintaining a plasmid in a host cell in vitro comprising the step of culturing a transformed host cell according to claim 1 under conditions sufficient to permit said cell to grow.
- (Withdrawn) A method of producing plasmid DNA comprising culturing a transformed host cell according to the method of claim 38 and isolating the plasmid DNA.
- 40. (Withdrawn) A method of producing a recombinant protein comprising culturing a transformed host cell comprising a plasmid encoding a protein of interest according to the method of claim 38 and isolating the protein from the cell.
- (Previously presented) A pharmaceutical composition comprising a transformed host cell according to claim 1 together with a pharmaceutically acceptable excipient, diluent or buffer.

PATENT

DOCKET NO.: CARP-0123/P035760US/HGH Application No.: 10/579,981

Office Action Dated: March 17, 2008

42.-43. (canceled)

44. (Withdrawn) A method of delivering a gene to a patient comprising administering to the

patient a transformed host cell according to claim 3.

45. (Withdrawn) A method of maintaining a plasmid in a recipient organism comprising

introducing a transformed host cell according to claim 1 into said organism, wherein said

chromosomal gene in said transformed host cell is essential for cell growth in vivo.

46.-71. (Canceled)

72. (Withdrawn) A method of immunizing a patient against a disease caused by a pathogen

comprising administering a transformed host cell according to claim 1 to the patient.

73. (Canceled)